Weekly COVID-19 Update in Montana (as of 4/22/2022)

This report is a weekly snapshot of COVID-19 activity in Montana. Data are analyzed based on information available as of April 22, 2022. Data are provisional and expected to change as more information is received.

Case Data

Table 1. Summary of COVID-19 Activity – Montana, as of 4/22/2022

	TOTAL	RECENT WEEK	PERCENT CHANGE FROM PREVIOUS WEEK
REPORTED CASES	**273,537**	**357**	**+20%**
LABORATORY TESTS	**2,764,067**	**10,721**	**+1%**
HOSPITALIZATIONS	**11,876**	**15**	**+7%**
DEATHS	**3,300**	**40**	**+700%****

**a COVID death reconciliation was sent out the week ending 4/22/22, resulting in an increase in the number of COVID deaths reported that week

Figure 1. COVID-19 Cases and Hospitalizations over Time – Montana, as of 4/22/2022

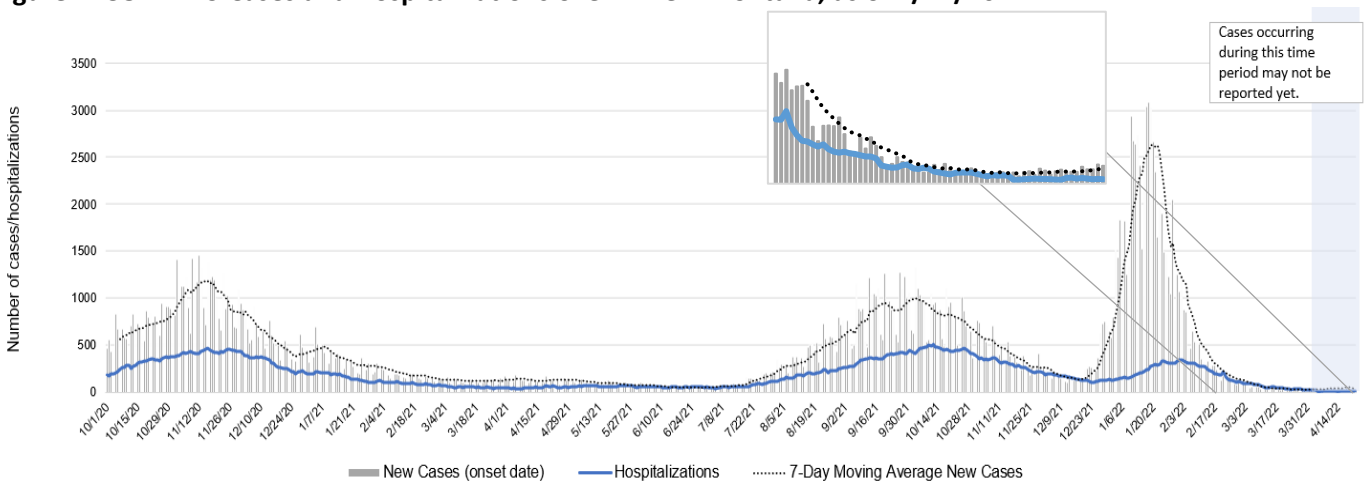


Figure 2: Status of Acute Care and ICU Beds – Hospitals in Montana, 4/13 – 4/26/2022

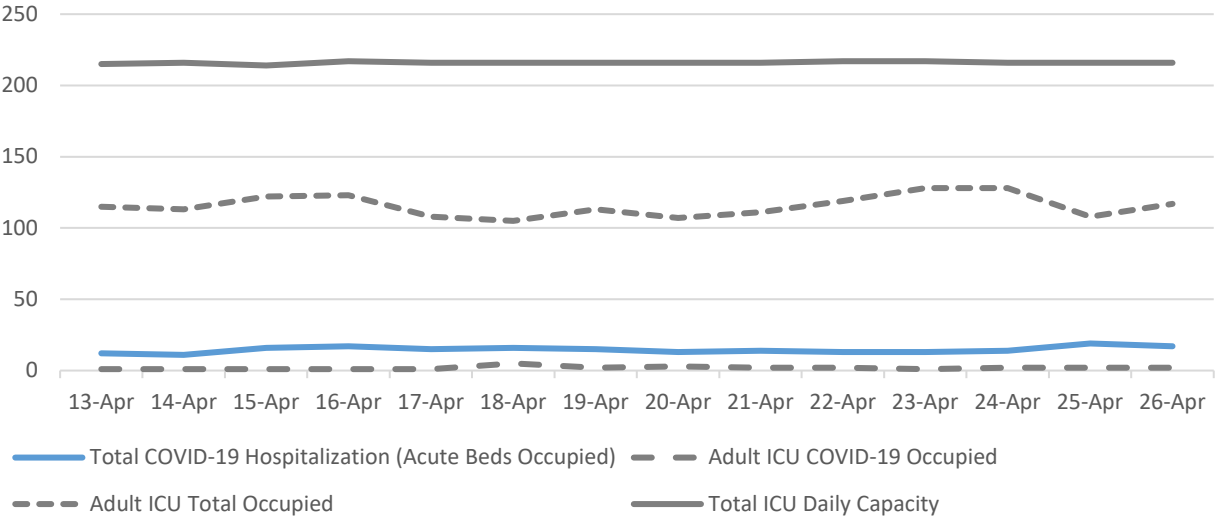
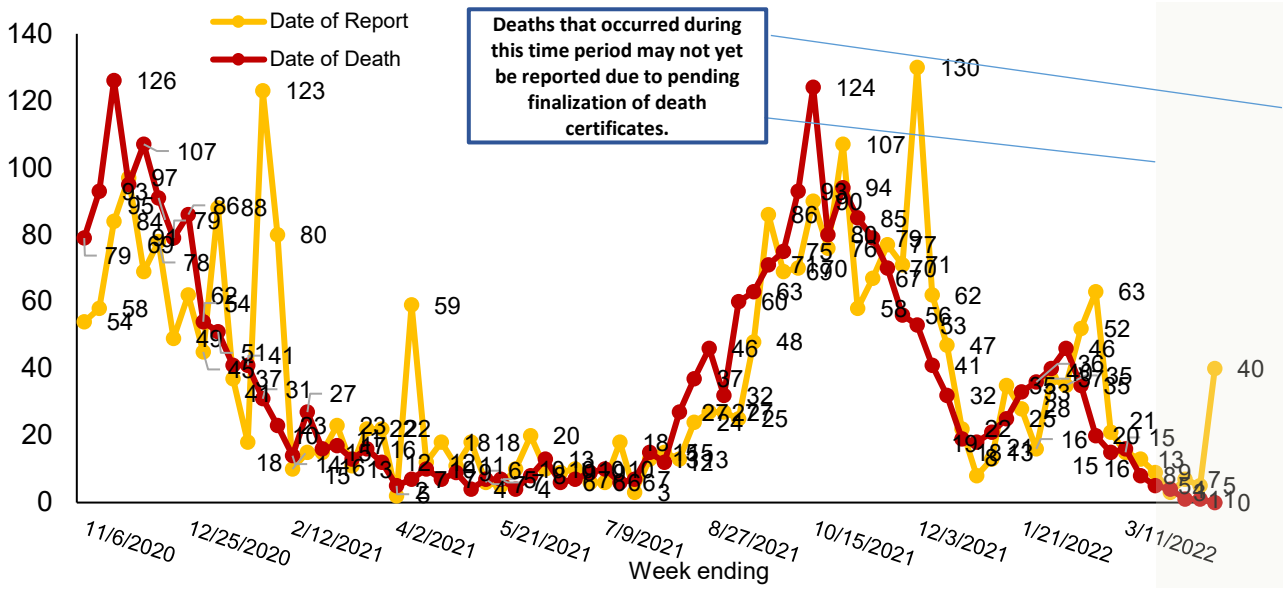


Figure 3. COVID-19 Deaths by Report Date and Date of Death – Montana, 11/1/2020 – 4/22/2022



Vaccine Data

Montana began vaccinating individuals in mid-December 2020 with a phased process: Phase 1A on December 14, 2020, Phase 1B on January 19, 2021, and Phase 1B+ on March 8, 2021. Vaccinations were opened to all Montanans age 16+ on April 1, 2021 and expanded to all Montanans age 12+ on May 10th, 2021. Most recently, the Pfizer vaccine was approved for the 5-11 year old age group on October 29th, 2021. To date, 1,448,932 doses have been given across the state and 55% of the eligible population is considered fully vaccinated (table 2).

Table 2: COVID-19 Vaccine Doses Administered for the 5 and older population – Montana, as of 4/22/2022

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 4/8	WEEK ENDING 4/15	WEEK ENDING 4/22*
TOTAL DOSES ADMINISTERED	**1,448,932**		8,429	8,236	**7,232**
DOSE 1 ADMINISTERED	**633,213**	**62%**	614	518	**462**
FULLY VACCINATED INDIVIDUALS	**562,495**	**55%**	640	608	**516**

*the data for the most recent week are preliminary and are expected to be an underestimate of the doses administered during the week, due to a reporting lag.

Figure 4. COVID-19 Vaccine Doses Administered by Week, 5+ Years – Montana, as of 4/22/2022

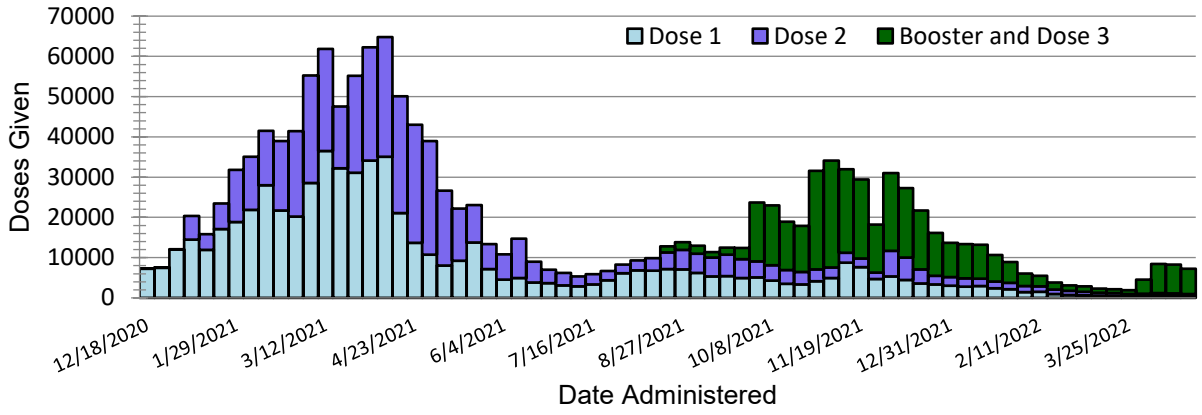
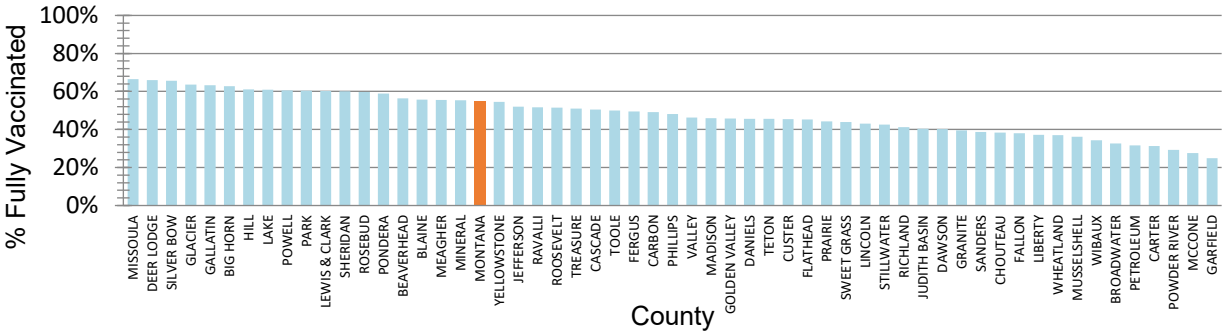


Figure 5. Percent of Eligible Montanans (5+ years) Fully Vaccinated by County – Montana, 4/22/2022



Variant and Breakthrough Cases

Figure 6 displays the number of Montana samples sequenced by week. Figure 7 displays the percentage of the most common SARS-CoV-2 lineages detected out of all Montana samples sequenced by week. There have been 16,580 samples from Montana that have been sequenced with their lineages reported to GISAID since September 2020. **Please note the relatively small number of samples sequenced in recent weeks limits interpretation of the available variant sequencing data.**

As of April 26, there have been 4,092 cases across Montana infected with Omicron variants—4,047 (99%) infected with BA.1/B.1.1.529 and 45 (1%) infected with BA.2. DPHHS is monitoring sublineages of the Omicron variant, including BA.2 (pink, below), which was first detected in Montana on January 30, 2022. In the past four weeks, 21 sequences have been reported to GISAID—9 (43%) BA.1/B.1.1.529 and 12 (57%) BA.2. Please note only 4 positive samples were collected the week ending April 23, 2022 that were sequenced and reported to GISAID, three of which were BA.2 (75%).

Figure 6. Number of COVID-19 samples sequenced by collection date, Montana 4/23/2022

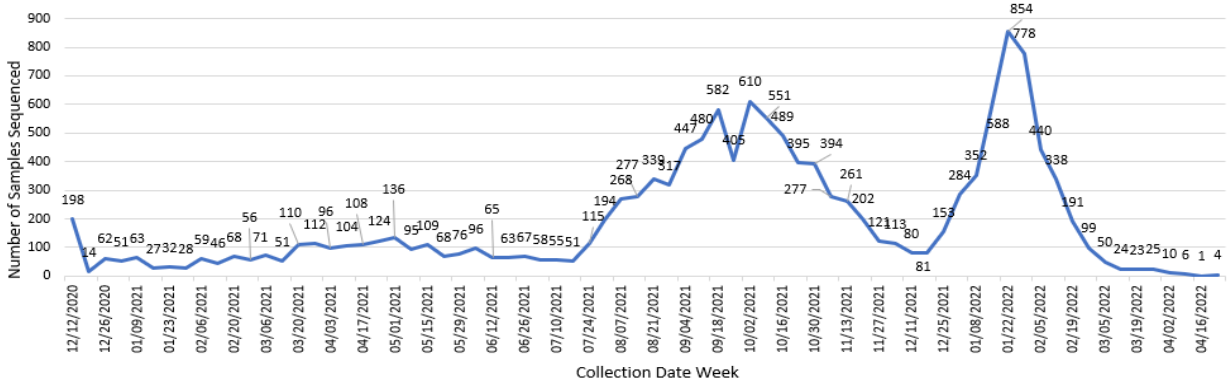
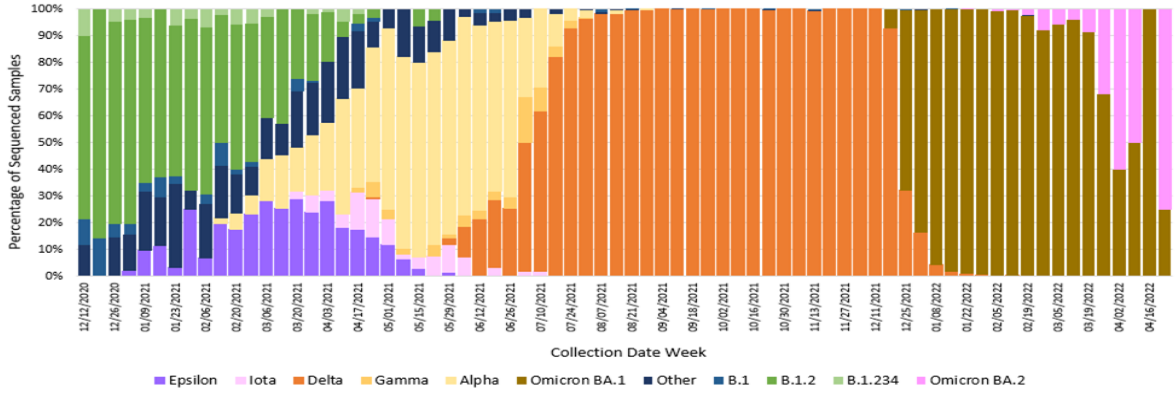


Figure 7. Percent of COVID-19 variants in sequenced samples by collection date, Montana 4/23/2022



A breakthrough COVID-19 infection is defined as a positive SARS-CoV-2 specimen collected ≥14 days after completing the primary COVID-19 vaccine series of an FDA-authorized COVID-19 vaccine. Studies show that protection from COVID vaccination decreases over time; in response, the CDC has recommended booster doses for eligible populations to protect against waning immunity. As of 4/22/2022, Montana reports 43,387 cases of confirmed breakthrough disease, which includes 1,451 hospitalizations and 412 deaths. CDC data from February 2022 show that unvaccinated individuals aged 12 years and older were more than 3 times more likely to become infected with COVID-19, compared to fully vaccinated individuals in the same age group with a booster dose. Additionally, unvaccinated individuals 12 and older had 20 times the risk of dying from COVID-19 compared to fully vaccinated individuals in the same age group with booster doses.[1]

Hospitalizations and Deaths and Vaccination Status

COVID-19-related hospitalizations and deaths were analyzed between **April 1, 2021 and April 22, 2022** to review vaccination status. Since the beginning of April 2021, 80% of Montanans who were hospitalized and 77% of those who died were unvaccinated at the time of infection (Table 3). Of the 7,037 individuals who were hospitalized during this time period, 138 (2%) were <18 years old, 953 (14%) were 18 to 44 years old, 2,298 (33%) were 45 to 64 years old and 3,648 (52%) were ≥65 years old.

Additionally, COVID-19-related hospitalization and death data from **February 26– April 22, 2022** (last 8 weeks) were analyzed to review vaccination status. Sixty-three percent of Montanans who were hospitalized and 68% of those who died had not received a COVID-19 vaccine (Table 4)[†]. Of the 172 individuals who were hospitalized during this time period, 10 (6%) were <18 years old, 20 (12%) were 18 to 44 years old, 43 (25%) were 45 to 64 years old and 99 (58%) were ≥65 years old.

Table 3. Vaccination status of COVID-19 hospitalizations and deaths – April 1, 2021 to April 22, 2022

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**7,037**	**1,709**
UNVACCINATED	5,600 (80%)	1,308 (77%)
VACCINATED (BREAKTHROUGH CASE)	1,437 (20%)	401 (23%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-102 (63)**	**<1-103 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**7-103 (73)**	**20-101 (81)**

Table 4. Vaccination status of COVID-19 hospitalizations and deaths – February 26 to April 22, 2022

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**172**	**50**
UNVACCINATED	109 (63%)	34 (68%)
VACCINATED (BREAKTHROUGH CASE)	63 (37%)	16 (32%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-95 (68)**	**54-95 (74)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**19-97 (70)**	**39-92 (76)**

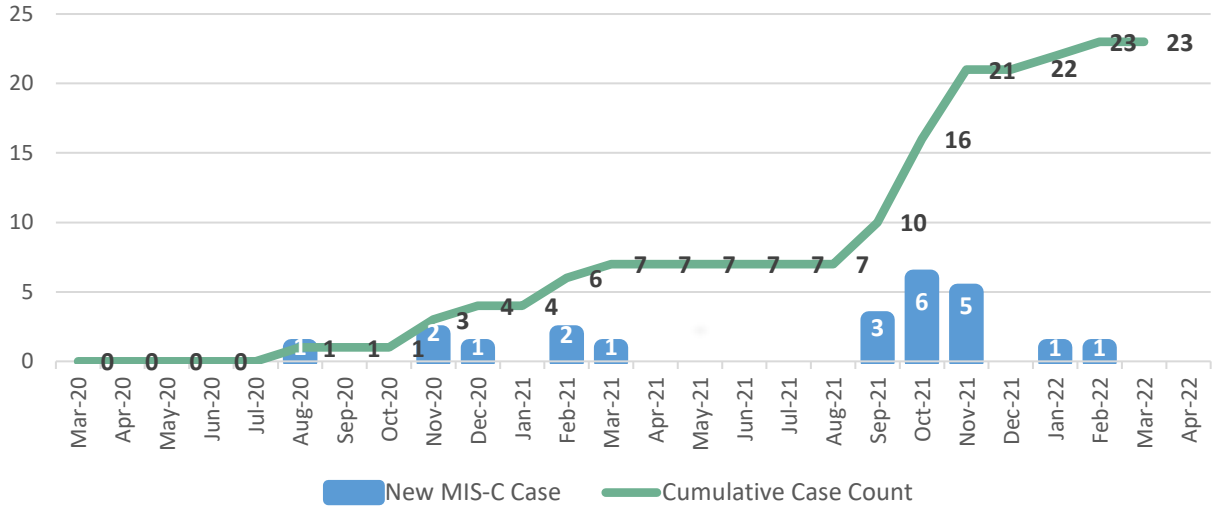
[†]The analysis of hospitalizations and deaths by vaccination status does not include data on booster doses. Booster doses are recommended by the CDC and have been shown to improve protection against hospitalization and death from COVID-19[1].

[1] CDC – COVID Data Tracker – Rates of COVID-19 Cases and Deaths by Vaccination Status. https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status. April 26, 2022.

Multisystem Inflammatory Syndrome in Children (MIS-C)

As of April 22, 2022, there have been a total of 23 cases of multisystem inflammatory syndrome in children, or MIS-C, reported in Montana. There have been no deaths. Ages range from less than 1 year to 20 years old; median is 8 years. Ten cases were female, 13 were male. Cases are from 13 counties around Montana. The first case of MIS-C was reported in August 2020; 16 of the 23 cases have been reported since September 2021 (Figure 8).

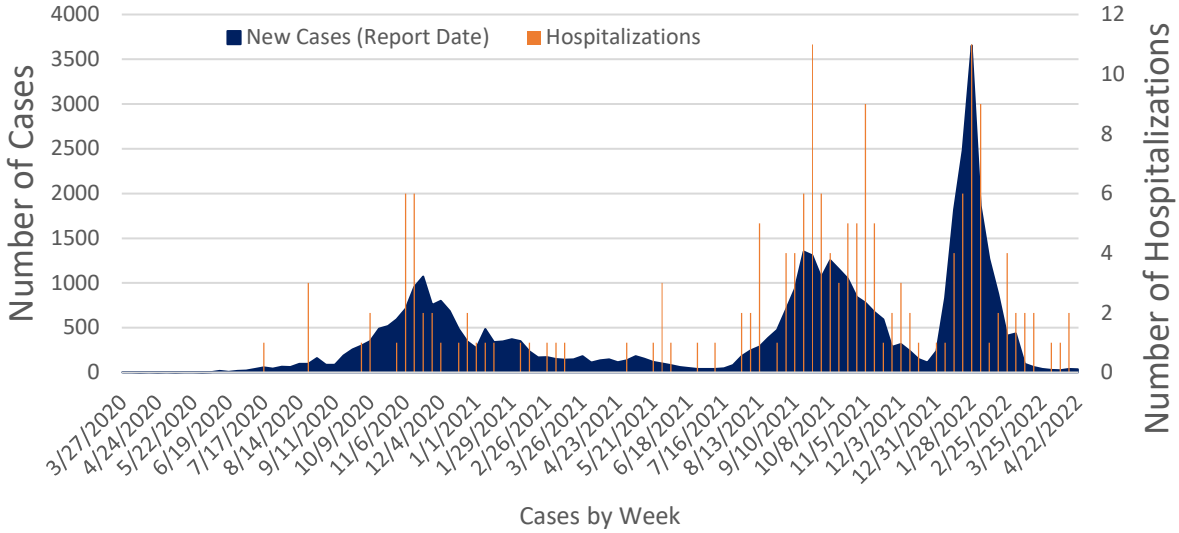
Figure 8. Montana MIS-C Cases by Month of Onset, March 2020 – April 2022



Cases and Hospitalizations Associated with COVID-19 Among Children

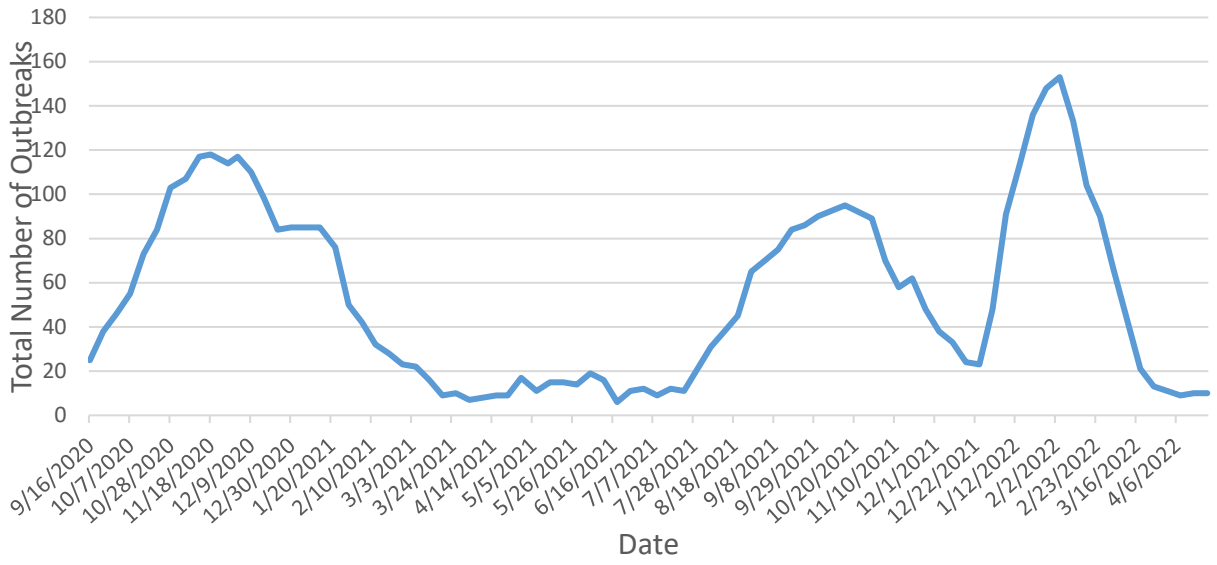
To date, there have been 42,981 children <18 years old in Montana diagnosed with COVID-19. Of those, 174 (<1%) have been hospitalized. Case rates among children follow a similar pattern to COVID-19 cases among all age groups (see Figure 1 for comparison) and increased sharply during the recent Omicron surge (Figure 9). There were 34 cases of COVID-19 in children reported during the week of April 16 – April 22, 2022, which is a 15% decrease in cases among that age group compared to the previous week. No hospitalizations in children were reported that week.

Figure 9. COVID-19 Cases and Hospitalizations by Week, March 2020 – April 22, 2022, Children <18



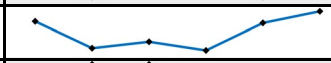
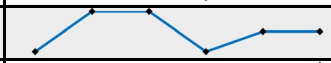
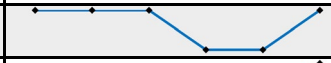
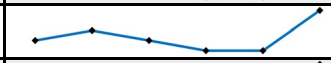
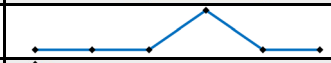
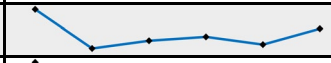
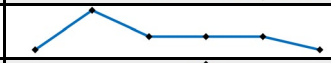
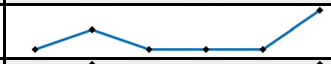
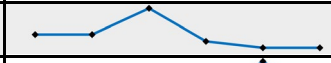
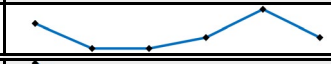
Assisted Living Facilitiy and Long Term Care Facility Cases and Hospitalizations

There are 71 long-term care facilities (LTCFs) and 211 assisted living facilities (ALFs) in Montana. As of April 22, 2022, there have been 10,838 cases associated with ALFs and LTCFs since the beginng of the pandemic, which compromises 4% of the total number of COVID-19 cases Montana has reported. There have been 649 COVID-related deaths associated with ALFs and LTCFs in Montana, which accounts for 20% of the COVID-related deaths that Montana has reported since the beginning of the pandemic. There are 10 facilities that are currently responding to a COVID outbreak, meaning they have identified a case of COVID-19 in a resident or staff member within the last 14 days (Figure 10).



Reported COVID-19 Cases by County with Trendline – Montana, past 6 weeks

County	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	change from previous week*	Trendline
Beaverhead	3	4	5	0	0	2	2	
Big Horn	0	4	2	0	5	5	0	
Blaine	2	1	2	0	1	3	2	
Broadwater	4	1	0	1	1	1	0	
Carbon	2	4	1	4	8	7	-1	
Carter	2	0	0	0	0	1	1	
Cascade	29	21	13	22	16	15	-1	
Chouteau	0	0	7	3	0	1	1	
Custer	6	2	3	0	4	0	-4	
Daniels	0	0	0	0	0	0	0	
Dawson	1	1	1	0	1	1	0	
Deer Lodge	5	8	2	2	3	2	-1	
Fallon	0	0	1	0	0	1	1	
Fergus	7	7	3	1	1	1	0	
Flathead	22	31	16	15	16	26	10	
Gallatin	37	32	34	45	40	64	24	
Garfield	0	0	0	0	0	0	0	
Glacier	6	3	0	2	3	1	-2	
Golden Valley	0	0	0	0	0	0	0	
Granite	1	1	0	0	0	1	1	
Hill	4	3	2	2	3	7	4	
Jefferson	1	0	2	3	2	2	0	
Judith Basin	1	0	1	0	1	0	-1	
Lake	4	14	9	3	2	5	3	
Lewis and Clark	53	27	11	18	26	20	-6	
Liberty	0	2	1	0	1	0	-1	
Lincoln	21	12	3	4	6	21	15	
Madison	1	0	1	1	0	3	3	
McCone	0	0	0	0	0	0	0	
Meagher	0	0	0	0	0	0	0	

County	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	change from previous week*	Trendline
Mineral	1	0	2	1	0	1	1	
Missoula	68	31	40	28	66	82	16	
Musselshell	0	2	2	0	1	1	0	
Park	9	6	5	6	6	11	5	
Petroleum	0	0	0	0	0	0	0	
Phillips	4	2	0	0	0	0	0	
Pondera	1	1	1	0	0	1	1	
Powder River	1	2	1	0	0	4	4	
Powell	1	1	0	0	0	4	4	
Prairie	0	0	0	1	0	0	0	
Ravalli	15	5	7	8	6	10	4	
Richland	27	3	4	4	0	0	0	
Roosevelt	8	12	1	2	0	1	1	
Rosebud	0	3	1	1	1	0	-1	
Sanders	2	2	2	4	2	1	-1	
Sheridan	1	1	0	0	0	1	1	
Silver Bow	10	6	8	6	9	9	0	
Stillwater	2	3	2	2	2	4	2	
Sweet Grass	1	2	0	1	0	2	2	
Teton	0	1	1	2	2	1	-1	
Toole	1	2	0	0	1	0	-1	
Treasure	0	0	0	0	0	0	0	
Valley	2	2	6	1	0	0	0	
Wheatland	1	0	0	0	2	0	-2	
Wibaux	0	0	0	0	0	0	0	
Yellowstone	47	24	24	34	60	34	-26	
MONTANA	**414**	**289**	**227**	**227**	**298**	**357**	**59**	

†Note: Data are based on the date of report into the Montana Infectious Disease Information System (MIDIS). Underlined numbers in the above table reflect adjusted counts and may include cases diagnosed but not reported in earlier time frames. These adjustments result from local and state data reconciliation efforts, conducted to ensure accurate data.

County name	Eligible population 5+	Dose 1	Dose 2	Dose 3	Fully Immunized	Total Doses Administered	Percent eligible with first dose (5+)	Percent Fully Vaccinated (5+)
BEAVERHEAD	9,091	5,493	4,429	2,751	5,120	12,673	60%	56%
BIG HORN	11,975	8,266	7,137	2,945	7,511	18,348	69%	63%
BLAINE	6,044	3,750	3,150	1,640	3,362	8,540	62%	56%
BROADWATER	6,092	2,377	1,751	995	1,991	5,123	39%	33%
CARBON	10,476	5,600	4,799	2,816	5,153	13,215	53%	49%
CARTER	1,141	380	336	185	358	901	33%	31%
CASCADE	76,124	43,124	34,351	19,484	38,452	96,959	57%	51%
CHOUTEAU	5,430	2,240	1,898	1,425	2,086	5,563	41%	38%
CUSTER	10,692	5,393	4,350	2,473	4,863	12,216	50%	45%
DANIELS	1,559	744	656	362	712	1,762	48%	46%
DAWSON	8,071	3,549	2,930	1,651	3,243	8,130	44%	40%
DEER LODGE	8,887	6,373	5,282	3,576	5,861	15,231	72%	66%
FALLON	2,646	1,085	958	491	1,008	2,534	41%	38%
FERGUS	10,495	5,509	4,785	3,032	5,188	13,326	52%	49%
FLATHEAD	99,993	52,169	40,980	24,509	45,296	117,658	52%	45%
GALLATIN	110,900	83,242	63,986	36,546	70,237	183,774	75%	63%
GARFIELD	1,188	318	253	105	296	676	27%	25%
GLACIER	12,447	10,506	7,362	3,451	7,924	21,319	84%	64%
GOLDEN VALLEY	788	388	329	180	361	897	49%	46%
GRANITE	3,218	1,457	1,166	652	1,272	3,275	45%	40%
HILL	14,914	9,932	7,724	4,306	9,119	21,962	67%	61%
JEFFERSON	11,819	6,745	5,728	3,632	6,141	16,105	57%	52%
JUDITH BASIN	1,880	803	694	419	758	1,916	43%	40%
LAKE	29,280	20,105	16,584	9,862	17,827	46,551	69%	61%
LEWIS & CLARK	66,257	45,274	37,048	23,368	39,930	105,690	68%	60%
LIBERTY	2,234	859	732	499	832	2,090	38%	37%
LINCOLN	19,480	9,482	7,698	4,734	8,406	21,914	49%	43%
MADISON	8,589	4,419	3,508	2,251	3,946	10,178	51%	46%
MCCONE	1,562	454	422	254	431	1,130	29%	28%
MEAGHER	1,726	1,012	871	546	958	2,429	59%	56%
MINERAL	4,302	2,630	1,915	1,323	2,385	5,868	61%	55%
MISSOULA	115,881	85,179	70,949	45,414	77,026	201,542	74%	66%
MUSSELSHELL	4,458	1,735	1,416	770	1,615	3,921	39%	36%
PARK	15,969	11,200	8,718	5,363	9,645	25,281	70%	60%
PETROLEUM	483	163	142	88	153	393	34%	32%
PHILLIPS	3,675	1,904	1,465	953	1,771	4,322	52%	48%
PONDERA	5,389	3,560	2,794	1,531	3,174	7,885	66%	59%
POWDER RIVER	1,588	501	409	211	466	1,121	32%	29%
POWELL	6,534	4,237	3,167	2,032	3,958	9,436	65%	61%
PRAIRIE	994	466	416	246	440	1,128	47%	44%
RAVALLI	42,972	24,574	19,798	13,272	22,202	57,644	57%	52%
RICHLAND	10,310	4,494	3,560	1,926	4,248	9,980	44%	41%
ROOSEVELT	9,918	5,754	4,322	2,298	5,105	12,374	58%	51%
ROSEBUD	8,160	5,454	4,349	2,318	4,871	12,121	67%	60%
SANDERS	11,641	5,066	4,200	2,490	4,505	11,756	44%	39%
SHERIDAN	3,075	1,935	1,713	1,074	1,846	4,722	63%	60%
SILVER BOW	33,267	23,902	20,462	12,690	21,822	57,054	72%	66%
STILLWATER	9,451	4,365	3,460	2,252	4,017	10,077	46%	43%
SWEET GRASS	3,523	1,707	1,323	898	1,549	3,928	48%	44%
TETON	5,819	3,123	2,209	1,366	2,656	6,698	54%	46%
TOOLE	4,391	2,349	1,776	885	2,198	5,010	53%	50%
TREASURE	623	425	295	146	318	866	68%	51%
VALLEY	6,931	3,383	2,747	1,738	3,208	7,868	49%	46%
WHEATLAND	2,035	808	698	443	753	1,949	40%	37%
WIBAUX	898	354	299	135	308	788	39%	34%
YELLOWSTONE	153,378	92,897	77,291	42,927	83,614	213,115	61%	55%
MONTANA	**1,020,663**	**633,213**	**511,790**	**303,929**	**562,495**	**1,448,932**	**62%**	**55%**